SWITCHERS &
ROAD SWITCHERS

NEW HAVEN

DIESEL LOCOMOTIVES VOLUME 1

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VOLUME 1

SWITCHERS & ROAD SWITCHERS

By

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&

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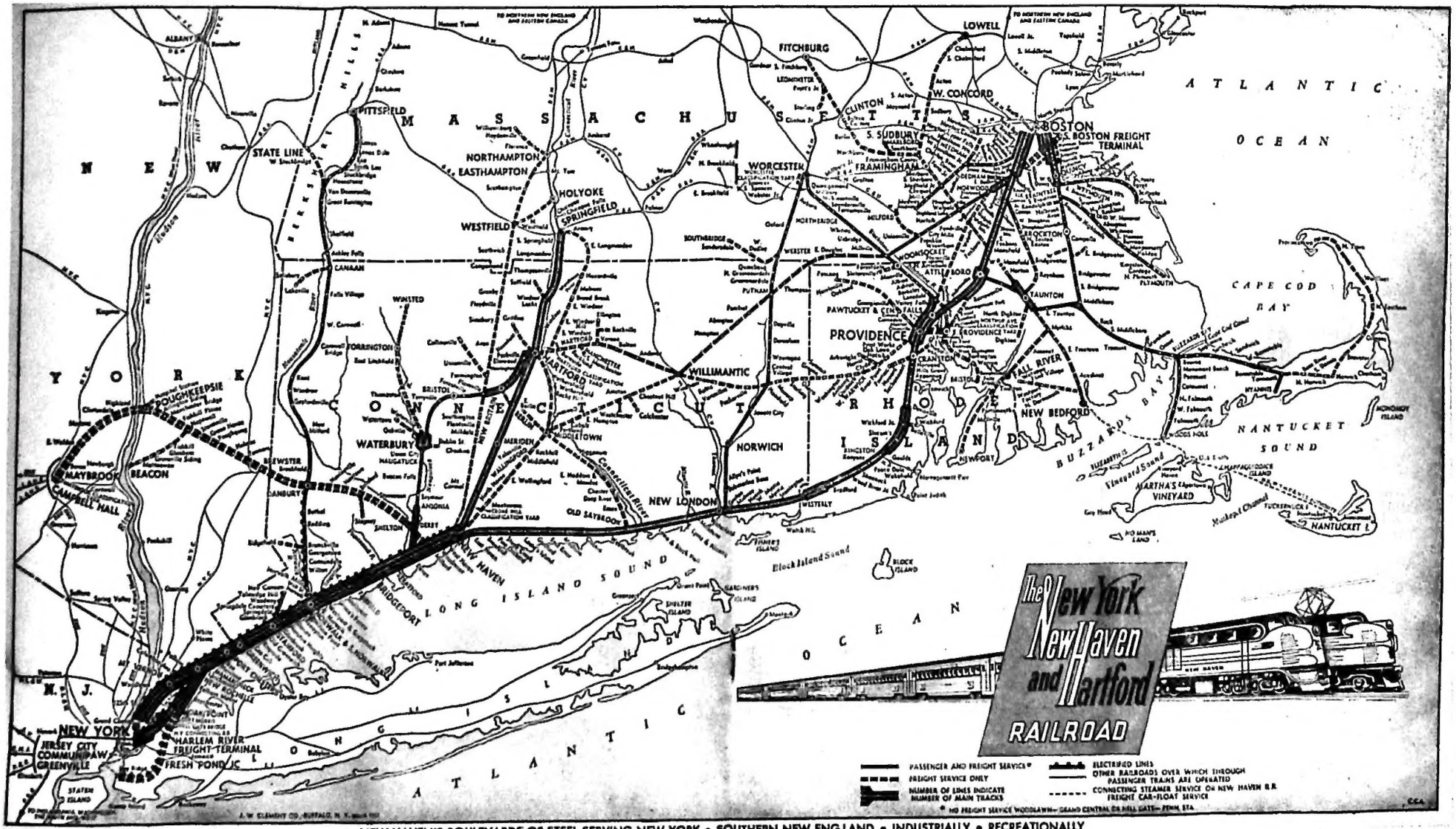
This book is based on the collection of black and white negatives owned by Robert A. Liljestrand. Copies of the photographs can be obtained through Bob's Photo, 37 Spring Street, Ansonia, CT 06401. Text and captions were written by David R. Sweetland and word processed by Carol Owens. J. W. Swanberg edited the book and furnished technical information.

FRONT COVER PHOTOS: RS-3 #543 at Hartford, CT on October 29, 1967, and HH660 #0926 at Boston in the late 1940s. (Both Bob's Photo collection)

REAR COVER PHOTOS: U25B #2519 at Cedar Hill Yard in January and GE 44-ton #0817 at New Britain, CT in 1966. (Both Bob's Photo collection)

TITLE PAGE PHOTO: New Haven Fairbanks-Morse road switcher #562 stopped at Norwood Central, MA station with train in 1951. This H16-44 unit had not yet been renumbered to the 590 series. (Bob's Photo collection)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BREWSTER
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WATERBURY
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MERIDEN
NEW LONDON
OLD SAYBROOK
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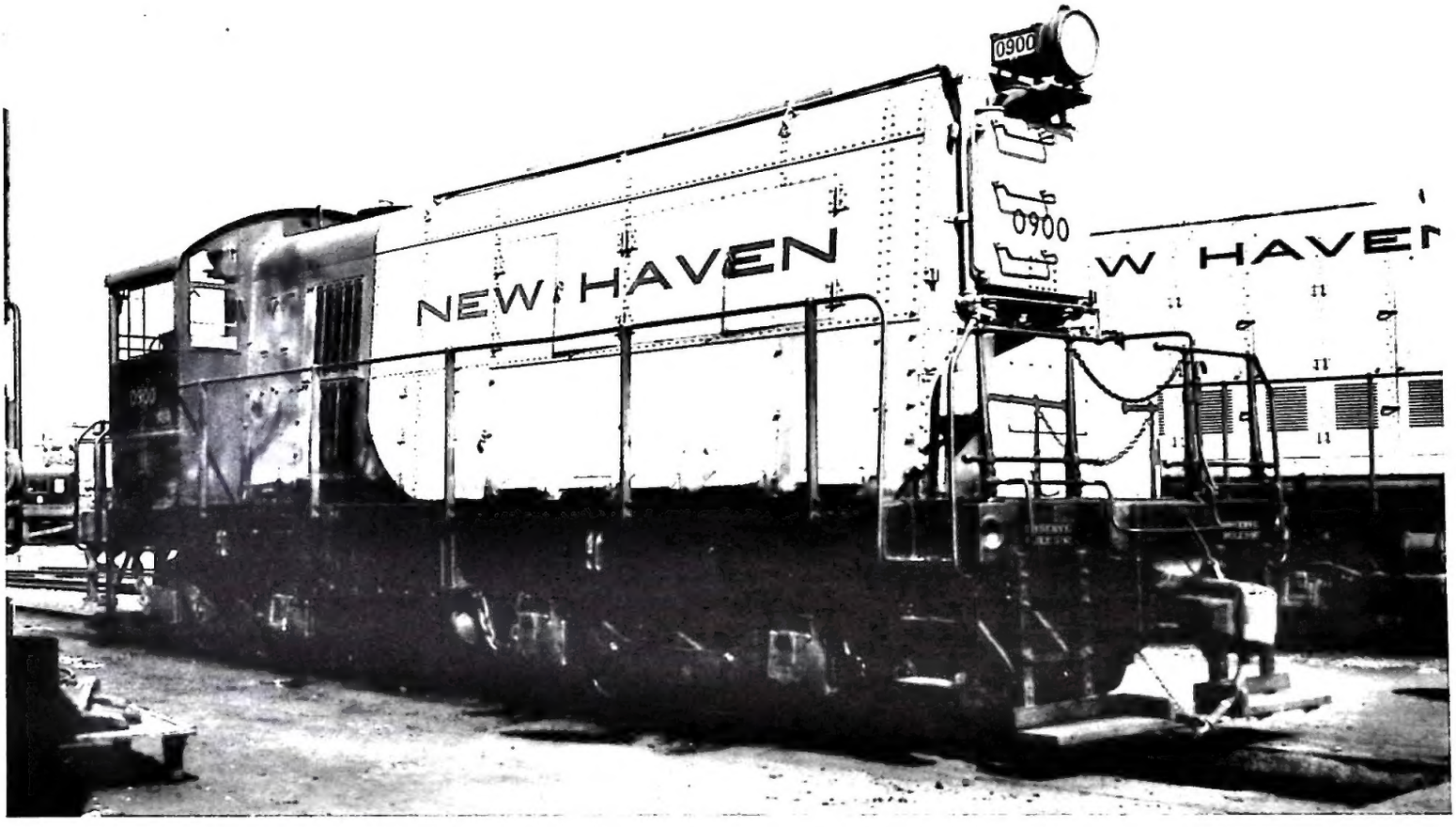
BUZZARDS BAY
NANTUCKET SOUND
ATLANTIC OCEAN
LONG ISLAND SOUND
Block Island Sound
CONNECTICUT
MASSACHUSETTS
RHODE ISLAND
NEW YORK
NEW JERSEY

CLASS DEY-1

DEY-1 0900 ALCO 1931 (FORMER DEMO. 600)

In 1928, Alco purchased the McIntosh & Seymour Corporation of Auburn, New York, a company that had been building stationary diesel engines since 1913. At its Auburn, NY plant, M&S designed and developed a 6-cylinder inline diesel engine (12½–inch bore and 13-inch stroke) rated at 600hp for use in a locomotive, enabling Alco to manufacture diesel locomotives by itself. In June 1931, Alco built its first 600hp diesel-electric locomotive demonstrator #600, giving it a class of 404-OE-200. Using the newly designed 600hp model 531 diesel engine, the locomotive was 40-feet 10-inches over couplers and had a nominal weight of 200,000 pounds. General Electric supplied the electrical equipment, a GT526 main generator and four GE 287D traction motors mounted in drop side equalizer trucks with 40-inch wheels. The front end of the locomotive was the cab end (engineer controls on the right side of the cab) and the sides of the hood were sloped. Next to the cab was the radiator compartment, then the main generator and finally the diesel engine. The lower part of the cab sides were open, exposing the air brake equipment.

On July 31, 1931, Alco shipped demonstrator #600 to the New Haven for service testing, and the unit started its operation at Belle Dock Yard in New Haven in August. Impressed with its performance, the New Haven purchased the unit on December 24, 1931 and renumbered it #0900 (the leading zero for other than steam power). Number 0900 remained in switching service on the New Haven until retirement in 1956, making Boston her assignment for most of the operating time.



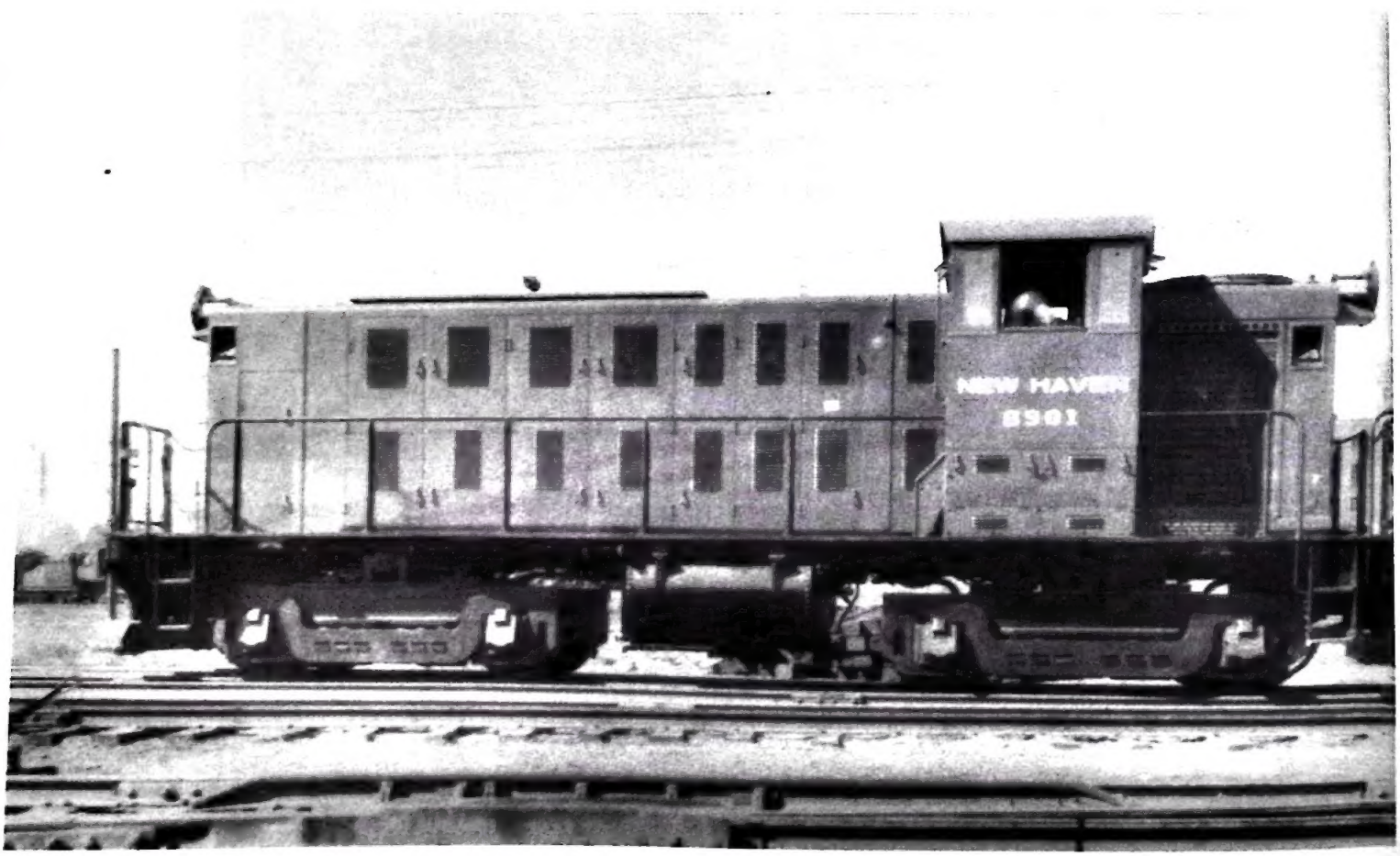
An early 1950s view of #0900 was taken at Southampton Street terminal in Boston wearing the orange hood paint scheme with a green cab and radiator section applied during the late 1940s. (Norton Clark collection)

On September 23, 1953, #0900 worked a switching assignment between Atlantic and Norfolk Downs. With the cab as front of locomotive, the view of the locomotive was from the rear showing the side and end of hood.

CLASS DEY-2

DEY-2	**0901-0905**	**GE (COOPER-BESSEMER diesel)**	**1936-37**
DEY-2a	**0906-0910**	**GE (INGERSOLL-RAND diesel)**	**1936**

Breaking away from its long time alignment with American Locomotive Company, the New Haven ordered ten custom built diesel switchers from General Electric in 1936. With a radiator compartment in the short hood, the units looked like small road switchers. Riding on fabricated trucks with small 33-inch wheels, the units had double reduction gearing for a top speed of 25 MPH. The first five units had 8-cylinder 10½ x 12-inch Cooper-Bessemer (model GN-8) diesel engines with a locomotive class of DEY-2 assigned in 1944, and the last five Ingersoll-Rand 8-cylinder 10x12-inch diesel engines; later these locomotives were assigned a class of DEY-2a. The units went to work at New Haven, Boston and Providence, but were later all centralized in New Haven. Being an odd ball type of switcher and with a limited top speed, the first five were condemned in 1952 and sold to the Bangor & Aroostook as their units #30-34. The last five were condemned in 1953 and sold to an equipment dealer with #0910 going to Kennebec Wharf & Coal Company and the others to Republic Steel. Originally painted dark green, some had the orange hood and green cab color scheme applied before retirement.



Working at New Haven in the1940s, Cooper-Bessemer powered #0901 wore the dark green color scheme. At that time, the diesel engine exhaust stack did not extend past the roof line of the hood.

CLASS DEY-1a&b

DEY-1a	**0911-0920**	**1938**	**model HH600**
DEY-1b	**0921-0930**	**1939-1940**	**model HH660**

In 1934, Otto Kuhler was hired by Alco to improve the carbody of the 600hp high hood switcher. As a result, the engine hood was raised to the level of the cab, the headlight recessed in the hood, the air brake equipment enclosed at the bottom of the cab, the flat front of the hood had rounded edges on the sides and a feather edge at the top. The model 531 6-cylinder diesel engine was retained, but the electrical equipment could be either GE or Westinghouse starting in the summer of 1935. New Haven ordered ten more Alco high hood switchers (#0911-0920) for delivery in February through April 1938. These HH600 units were assigned a class of DEY-1a in 1944.

Improvement in the design of the 531 diesel engine resulted in the model 538 diesel engine starting in 1938. The bore and stoke remained the same, but the maximum RPMs of the diesel engine was increased from 700 to 740 RPM, resulting in an horsepower increase to 660hp. The first high hood unit delivered with a model 538 diesel engine was B&M #1101 on August 22, 1938. For the carbody, the top front edge of the hood was now rounded. New Haven's next order for high hood units, #0921-0930, were delivered between December 1939 and February 1940 rated at 660hp. Again the units were ordered with GE electrical equipment and the main generator positioned at the front of unit, the "F" now being at the hood end for both the DEY-1a and DEY-1b units. Retirements for these high hood units did not start until the delivery of New Haven SW1200 units in 1956 and the last one operated into the Penn Central era.

In the circle, class DEY-1a #0913 waited at Boston on April 27, 1962. This group of high hood units had a feather edge carbody at the top front of the hood. (Jim Robinson)

Giving us a top view of the hood, #0916 was at Viaduct Bridge in Boston on September 15, 1946. The hood steps (grab irons) beside the radiator cores led to the rear sand box next to the roof mounted cooling fan.

First of DEY-1b class, #0921 was at Boston in the late 1940s. Built in December 1939, #0921 now wore its orange hood color scheme with dark green covering the cab and radiator section.

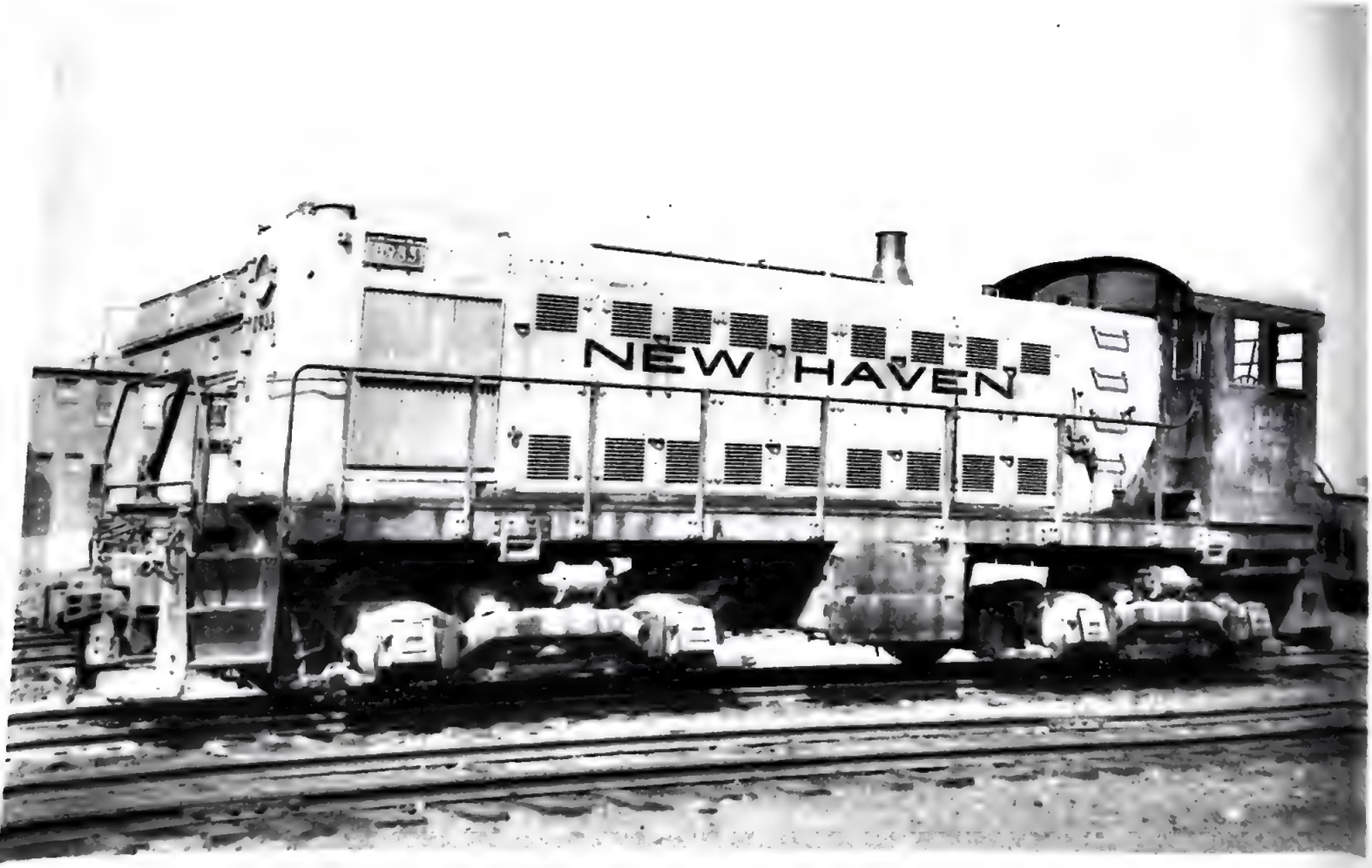
Working at Boston in the early 1940s, DEY-1b #0928 wore its original dark green color scheme. These class DEY-2b units were powered by an Alco model 538 diesel engine rated at 660hp.

Assigned to the South Boston freight yard, #0930 pulled a cut of box cars on April 19, 1959. Unit #0930 was the last high hood switcher built for the New Haven, February 1940.

CLASS DEY-3

DEY-3	0931-0940	ALCO	S-1	1941
DEY-3	0941-0946	ALCO	S-1	1942
DEY-3	0947-0960	ALCO	S-1	1943-1944
DEY-3	0961-0970	ALCO	S-1	1944
DEY-3	0971-0976	ALCO	S-1	1947
DEY-3	0977-0983	ALCO	S-1	1948
DEY-3	0984-0989	ALCO	S-1	1948
DEY-3	0990-0995	ALCO	S-1	1948-1949

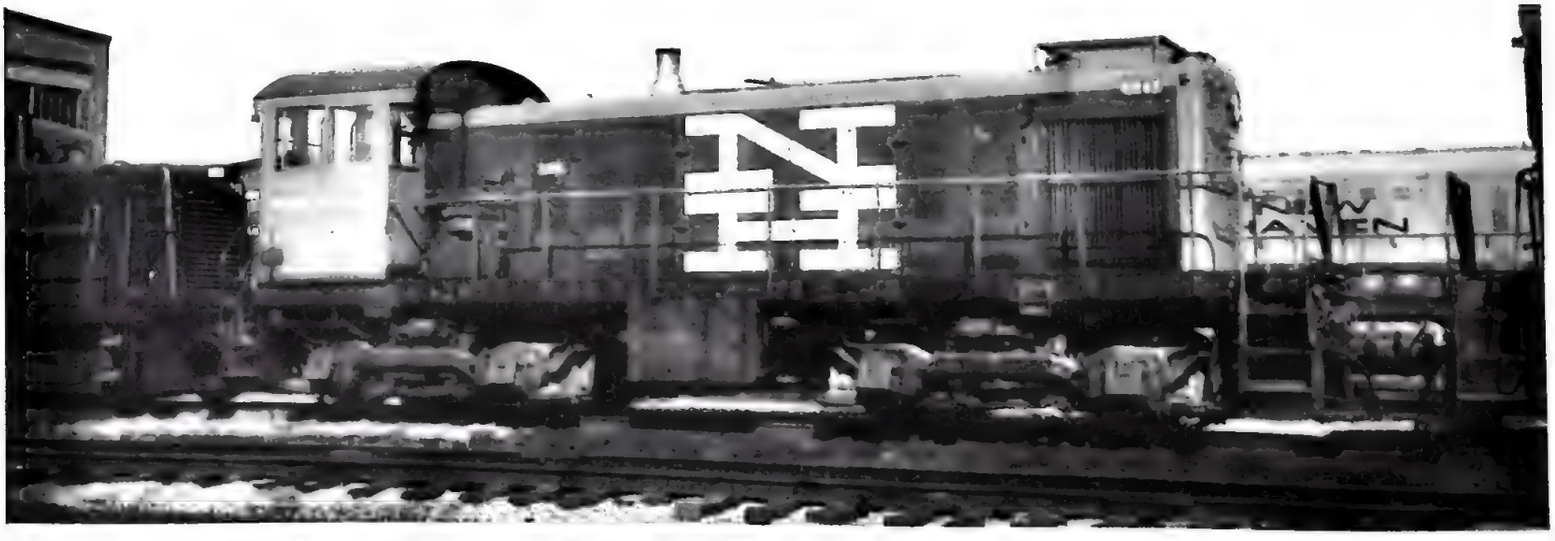
For its new line of lower hood switchers, Alco developed the model 539 diesel engine by moving the engine mounts to the side of the bedplate of the engine block, thus lowering the diesel engine into the locomotive frame. Alco delivered its first three model S-1 660hp low hood switchers to the Des Moines Union Railway in May 1940. With GE electrical equipment now standard, the S-1 units had a GT 552 main generator and four GE 731 traction motors. This 100-ton unit developed 29,200 pounds of tractive effort at 6.1 MPH and rode on Blunt trucks. In 1940, the New Haven ordered ten of these specification E1530 locomotives (later called the S-1) for delivery in 1941. Units #0931-0940 arrived between April and July 1941 and the second batch, #0941-0946, in June and July 1942. During the World War II years of 1943 and 1944, the New Haven received permission to purchase S-1 units #0947-0970 in separate small batches. Becoming the switcher of choice for the New Haven, the road purchased #0971-0976 for delivery in November and December 1947, #0977-0983 for January-March 1948 and #0984-0989 for September-November 1948. New Haven's final order of six, #0990-0995, arrived between December 1948 and January 1949, thus the NH acquired sixty-five S-1 units to dieselize most yards.



From the first group of New Haven S-1 units, #0933 was built in April 1941, less than one year after the start of S-1 production at Alco. An early 1950s photo shows #0933 in its orange hood and green cab color scheme.

Assigned at Framingham, MA, #0941 coupled to the wreck train on July 21, 1953. Built during the war years, #0941 left the Alco plant in June 1942.

New Haven S-1 #0963 switched cars in 1950. Built in March 1944, this green 660hp switcher was six years old at the time the photograph.



Painted in the McGinnis era color scheme, #0967 was at New Haven on May 17, 1959. The N over H logo was now applied to the hood after repainting at Readville Shops.

CLASS DEY-4

DEY-4	**0800**	**GE**	**44-ton**	**1940**
DEY-4	**0801-0806**	**GE**	**44-ton**	**1941**
DEY-4	**0807-0815**	**GE**	**44-ton**	**1945**
DEY-4	**0816**	**GE**	**44-ton**	**1945**
DEY-4	**0817-0818**	**GE**	**44-ton**	**1947**

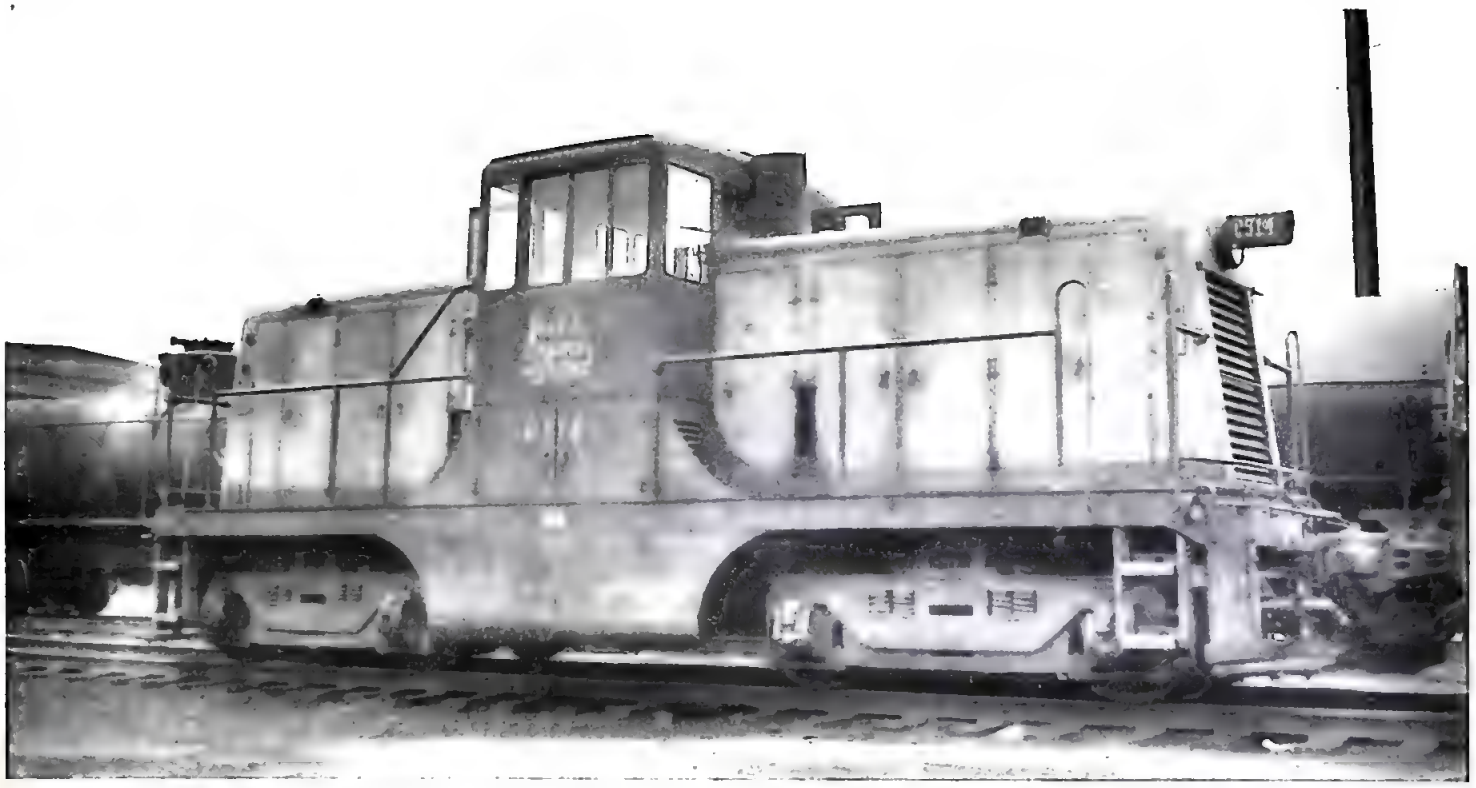
When General Electric became the only supplier for electrical equipment for Alco's S-1 and S-2 units in 1940, GE stopped marketing its Erie, PA built diesel switchers to the class 1 railroads except for the 380hp 44-ton unit. In 1940, GE developed a 44-ton center cab diesel-electric unit riding on fabricated trucks and having two D17000 Caterpillar diesel engines. On January 6, 1941, GE delivered a 44-ton unit to the New Haven (#0800) with a dark green carbody and gold lettering. Number 0800 had side steps, later changed to end steps for safer switching. During 1941, six more (#0801-0806) 44-ton units were purchased by the New Haven. These first seven units had side radiator grills to cool the two 190hp Caterpillar diesel engines at the end of each unit.

The 1945 built GE 44-ton units (#0807-0815 and 0816) came with redesigned end-mounted radiator grills. With double reduction gears for the traction motors, these GE 44-ton units were restricted to 30 MPH operation. The final two New Haven 44-ton units (#0817-0818) arrived in 1947 painted in the orange hood/green cab scheme. Several of the other units received the McGinnis color scheme during the 1950s. Starting in 1953, some of the 44-ton units were sold to other carriers and short lines. By 1961 all had been sold except #0812 and 0817, with the last two units remaining on the roster until the PC era.

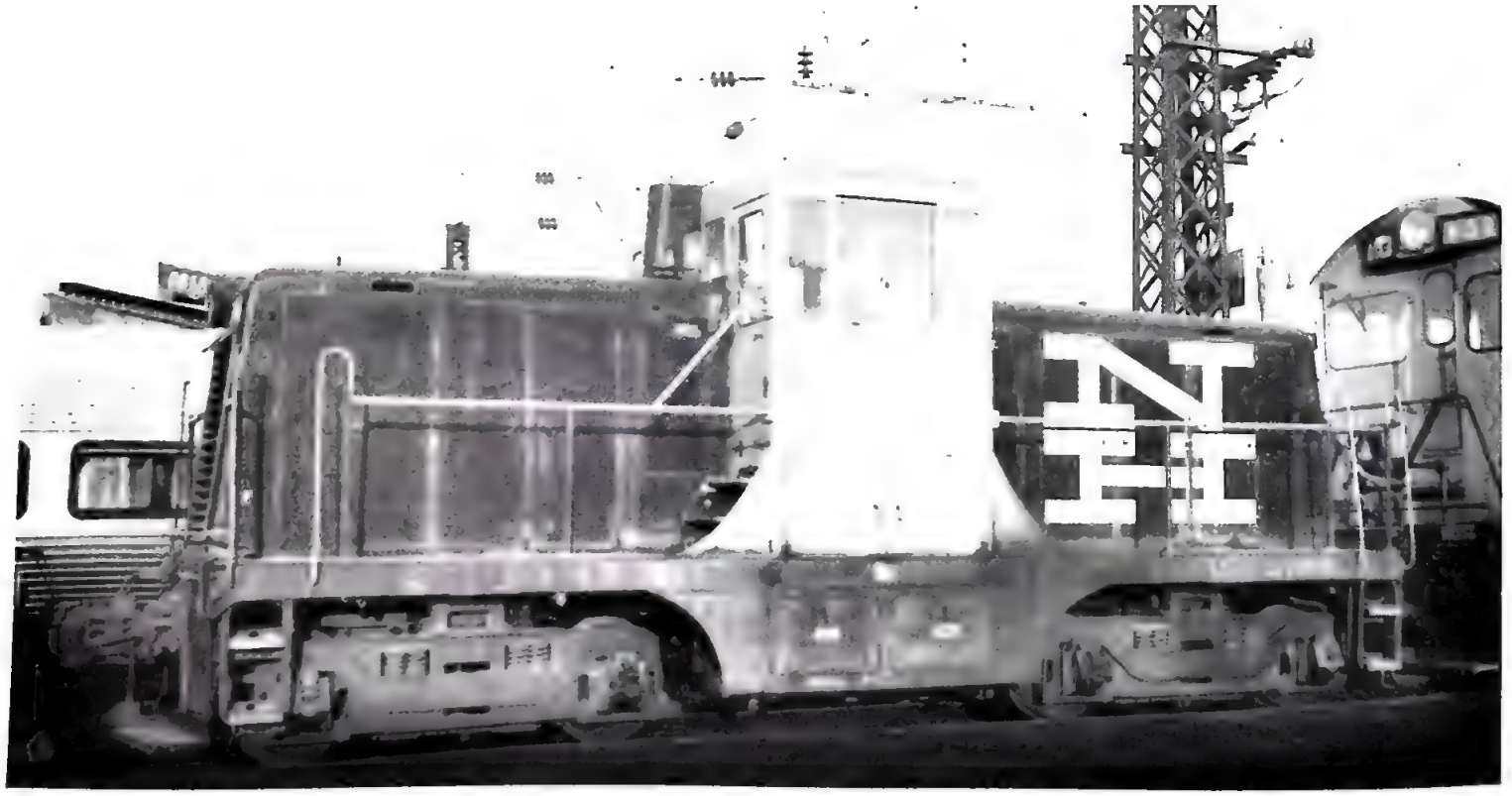
Two of New Haven's 44-ton units replaced DC electric locomotives on the Seaview Avenue Railroad in Bridgeport, CT. Number 0801 was photographed on this assignment on May 19, 1957.

In the McGinnis era paint scheme, #0807 worked the light duty switching assignment at Norwich, CT on August 1, 1957. Class DEY-4 was the first of the 1945 built units with end radiator gills.

GE 44-ton unit #0809 switched cars at Readville, MA on November 1, 1954. This Erie, PA assembled unit was built in February 1945, near the close of World War II.



NH #0814 was in the line up of units at New Haven on May 19, 1957. Part of the #0807-0815 group, #0814 remained on the roster for light duty assignments through the 1950s.



Last built of New Haven's 44-ton diesel switchers, #0818 was assembled by GE for the NH in 1947. Number 0818 was at Cedar Hill on July 26, 1960.

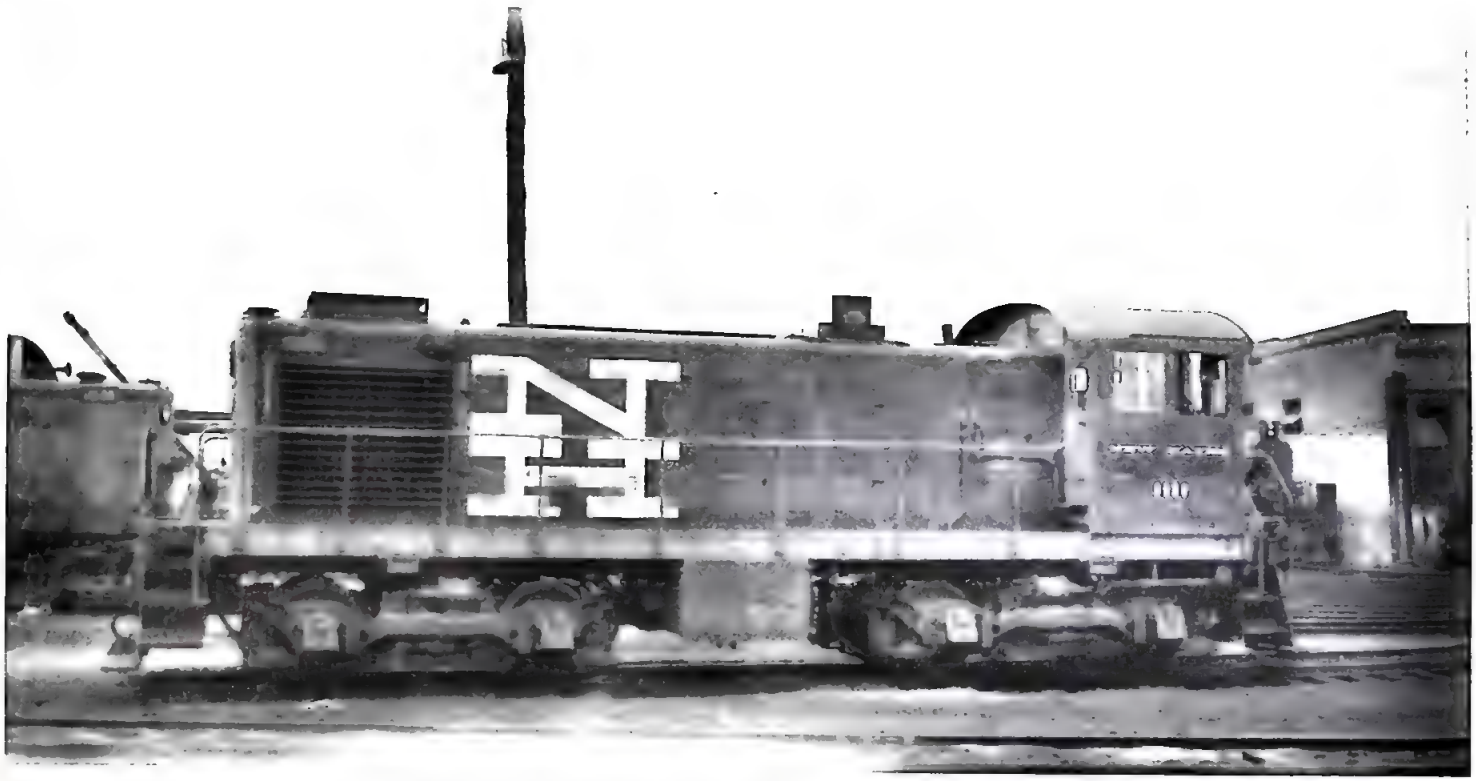
CLASS DEY-5

DEY-5	**0600-0603**	**ALCO**	**S-2**	**1943-1944**
DEY-5	**0604-0621**	**ALCO**	**S-2**	**1944**

To increase the horsepower of its high hood switcher, Alco turbocharged its 6-cylinder diesel engine (model 531T) to produce a 900hp switcher in March 1937. With the development of the model 538 diesel engine, the turbo-charged model 538T diesel engine was first (starting in January 1939) rated at 900hp at 700RPM, but in May 1939 upgraded to 1000hp at 740RPM. By changing the engine mounts to the side position to recess the diesel engine into the locomotive frame, the model 538 diesel engine became the model 539 engine and the 1000hp turbocharged version (539T) used in the new low hood model S-2 switcher. Alco shipped its first specification E1540 switcher (later called the S-2) in September 1940 to the EJ&E. These S-2 units had a General Electric model GT 553 main generator and four GE 731 traction motors. Riding on Blunt trucks with 40-inch wheels, the S-2 developed 34,000 pounds of tractive effort at 8 MPH.

New Haven's first group of four S-2 units (#0600-0603) were built, two in December 1943 and two in January 1944. The remaining S-2 units (#0604-0621) were assembled between May and November 1944 with the approval of the War Production Board, but none came equipped for MU operation. After the sale of Union Freight Railroad's 44-ton units, two from the New Haven's 0600-0603 group covered the Union Freight's operation in Boston. The S-2 units replaced 0-8-0s in the railroad yards and 2-8-0 or 2-8-2s on the road locals. Both New Haven S-1 and S-2 units were built with low-clearance cab roofs.

At Union Freight's yard on Atlantic Avenue in Boston on April 7, 1959, S-2 #0600 waited with another S-2 for night freight operations. New Haven S-2 units #0600-0603 were leased to Union Freight after the sale of their 44-ton units.



In the McGinnis era paint scheme, #0606 worked at South Boston on July 13, 1957. Blunt trucks were standard for all New Haven S-1 and S-2 units plus all of the class DEY-1a&b high hood units.

Built by Alco in August 1944, #0613 was at South Boston on May 12, 1958. Until its closing in 1958, Readville Shops repainted S-1 and S-2 units into the McGinnis era color schemes starting in 1956.

New Haven #0617 was at the Charles Street roundhouse on August 31, 1947, near the coaling tower. At Providence, this S-2 had replaced J-1 2-8-2s in local freight service.

Waiting for its next run, S-2 #0620 was in its "as delivered" paint scheme of dark green on March 22, 1947. Built in September 1944, #0620 was about three years old at the time of this photograph.

CLASS DEY-6

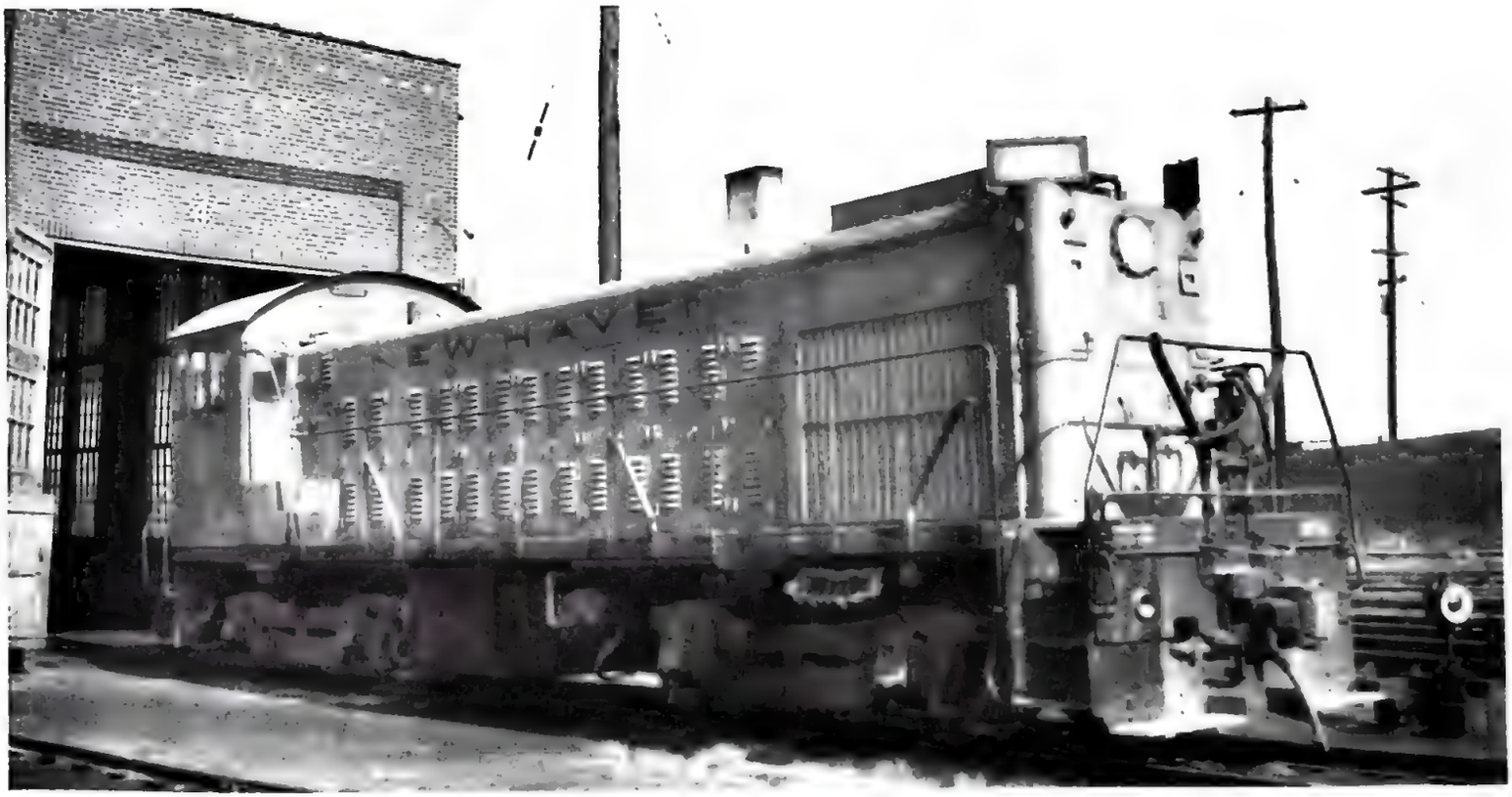
DEY-6	**630-639**	**LIMA-HAMILTON**	**LS 1200**	**1950**

In 1947, steam locomotive builder Lima acquired the rights to the Hamilton diesel engine and contracted with Westinghouse for electrical equipment. For its 1000hp unit, Lima-Hamilton used a four cycle, inline, 8½x10-inch 950 RPM turbo-charged diesel engine. Lima's first demonstrator was assembled in March of 1949 with three more built by the end of the year. By April 1950, the 8-cylinder Hamilton engine was upgraded to 1200hp by changing the fuel rack setting.

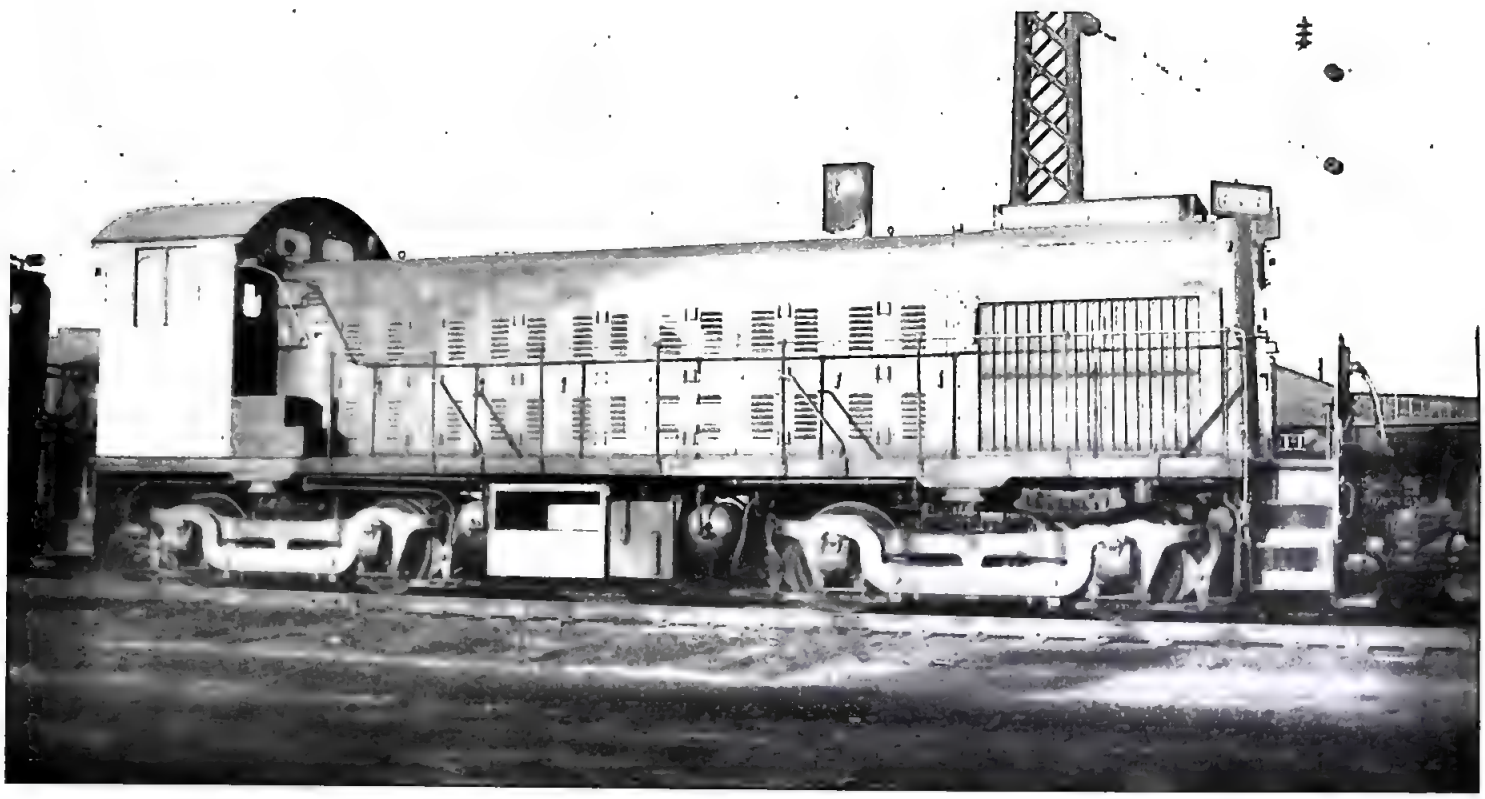
New Haven placed an order for ten MU equipped 1200hp switchers to dieselize Maybrook yard. DEY-6 units #630 and 631 were delivered in October 1950 (#630, the first, delivered 10/10/50) and #632-639 in November and December (#639, the last, delivered 12/6/50) to New Haven, CT. These orange and green units featured frame mounted handrails, MU equipment and air whistles. The 47-foot 10-inch long switcher (Lima specification A-3170) rode on plain-bearing drop equalizer General Steel Casting trucks. The MU feature was used for twin units on the Maybrook hump and to MU these units for movement from Maybrook back to New Haven. Any spare DEY-6 units were used at New Haven and several of the units (at least #630, 632, 633, 636 and 637) were painted into the McGinnis era paint scheme during the 1950s. Being odd ball units and having higher maintenance diesel engines, the ten units were condemned in 1960 and sold for scrap. Michael Schiavone & Sons scrapped the units and sold the Hamilton diesel engines to Streigel Marine Equipment of Baltimore.

Outside of track #4 door, Lima-Hamilton #630 idled on March 31, 1957, at Maybrook. To the shock of Alco, the New Haven had ordered Lima-Hamilton switchers for delivery in 1950.

On the pit at Maybrook Yard on March 31, 1957, class DEY-6 switcher #633 was being serviced. About half of the Lima-Hamilton fleet received this McGinnis paint scheme during the late 1950s.



With the doors open on track #4, model LS1200 #635 idled at Maybrook, NY on October 14, 1956. Delivered to the New Haven on November 16, 1950, 1200hp #635 was still in its original paint scheme.



MU equipped #636 was at Cedar Hill on July 26, 1960, waiting its final fate. Like the NKP and Erie, the New Haven ordered its Lima switchers with frame-mounted handrails.

In the line up at Cedar Hill on July 26, 1960, #637 wore its McGinnis era paint scheme. Delivered on November 19, 1950, it operated almost ten years on the New Haven before being pulled from service for retirement.

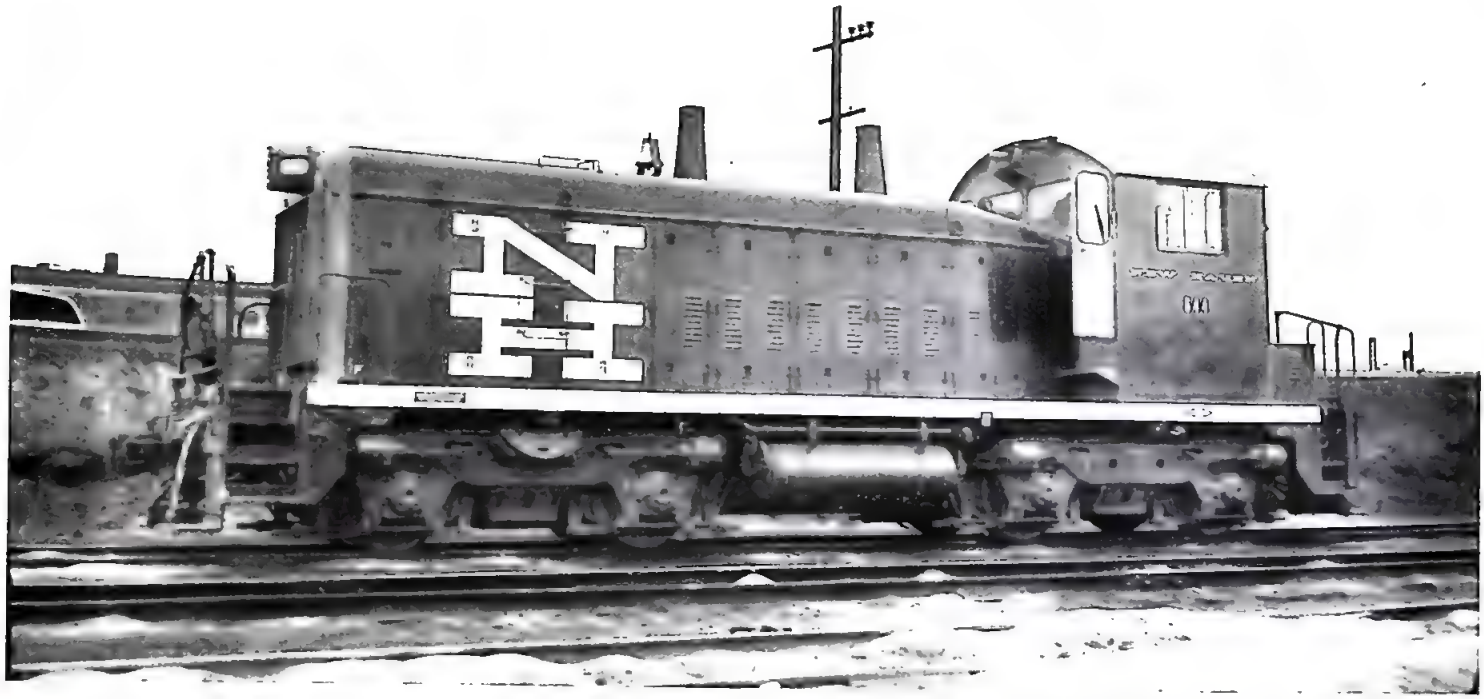
CLASS DEY-7

DEY-7	**640-649**	**EMD**	**SW1200**	**1956**
DEY-7	**650-659**	**EMD**	**SW1200**	**1956**

Between October 1949 and January 1951, EMD produced 493 model SW7 1200hp switchers using its famous 567A diesel engine. With the development of the V-12 567B diesel engine, EMD upgraded its 1200hp switcher to the model SW9, producing 786 units in the U.S. between February 1951 and December 1953. When EMD announced its new line of locomotives for 1954, it introduced the SW1200 switcher in January with the improved 567C diesel engine, but still rated at 1200hp.

With the change in management on the New Haven in 1955, New Haven's new team wanted EMD locomotives. First they placed an order for ten 1200hp switchers, later increased to twenty units. New Haven's options on these units were flexicoil trucks with roller bearings for road service and MU equipment for multiple unit operation. The 62:15 gear ratio allowed for 65 MPH operation, and they were delivered in the red/black/white McGinnis color scheme. With the delivery of these units, many high hood Alco switchers went into retirement and later the ten Lima-Hamilton units. All twenty SW1200 units went into the Penn Central merger and later to Conrail. New Haven's twenty SW1200 units were just a small part of the 737 SW1200 units built by EMD in the U.S., and GMD in Canada built 287 more SW1200s.

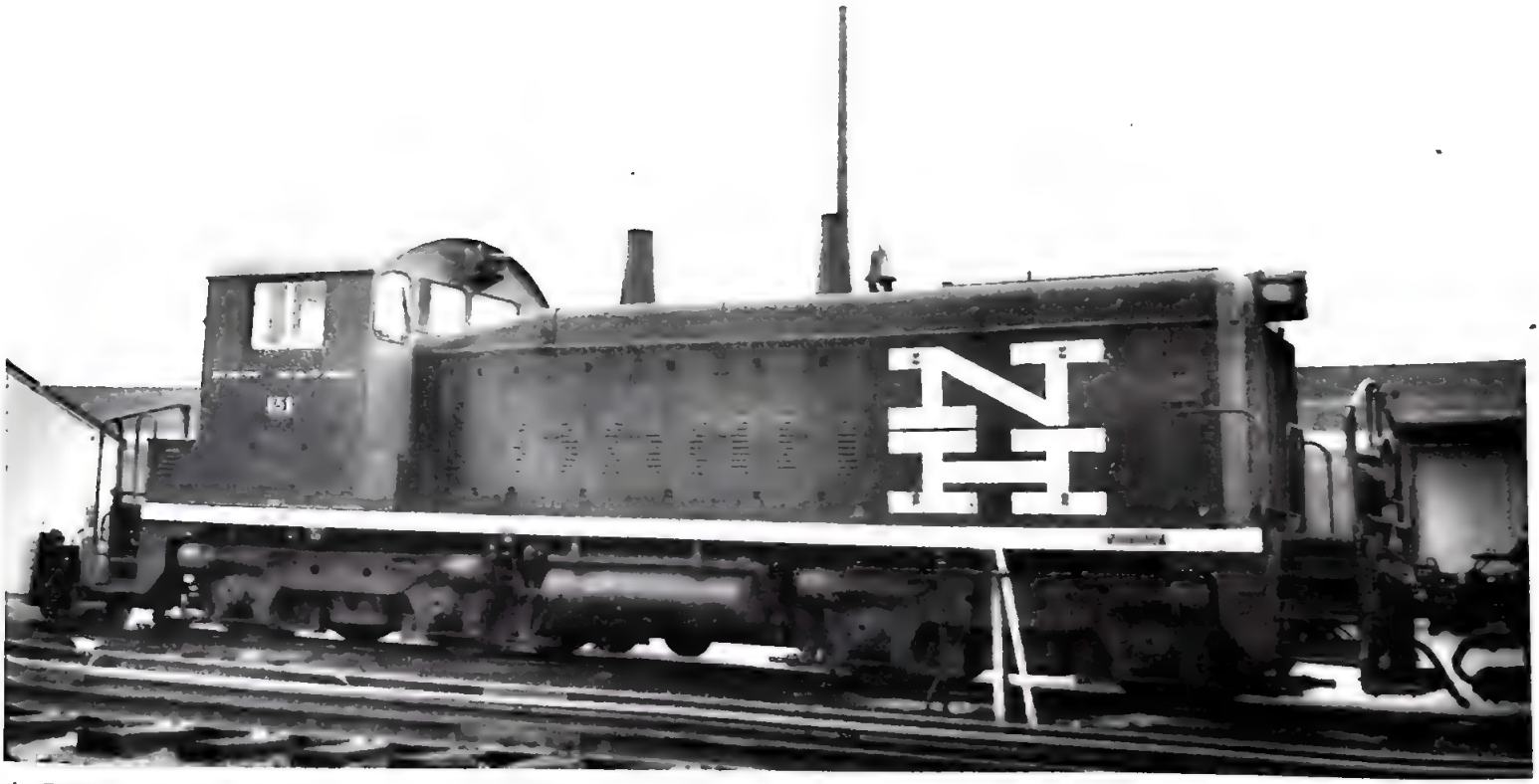
At Cedar Hill on July 26, 1960, SW1200 #641 idled near the former coal dock. Number 641 was only the second EMD to arrive on the New Haven.



On May 19, 1957, class DEY-7 #644 was stationed at New Haven. It operated as a single unit in local freight service.

At Maybrook, NY on September 22, 1969, #649 had taken over duties formerly held by a Lima-Hamilton switcher. By this date, the New Haven Railroad had moved into the Penn Central camp.

Showing its flexicoil trucks and Hyatt roller bearings, #653 was coupled to another SW1200 unit. Photographed at Cedar Hill, #653 was operating on a hot July 26, 1960.



At Bridgeport Yard on May 19, 1957, #656 was coupled to a GE 44-ton switcher. The 650 group was the add-on order for SW1200's purchased by the New Haven.

DERS-1

DERS-1b	**0660-0669**	**ALCO**	**RS-1**	**1948**
DERS-1b	**0670-0671**	**ALCO**	**RS-1**	**1948**

Under Alco order S1831, Alco produced two 1000hp road switchers for the Rock Island. Completed in March 1941, RI #748 and 749 with an extended frame rode on 9-foot 4-inch wheelbase trucks and are considered the first road switchers. These specification E1640 (later model RS-1) units had GT 533 main generators and GE 731 traction motors. The rated tractive effort at 8 MPH was 34,000 pounds and a top speed of 60 MPH. Its nominal weight was 240,000 pounds and a length of 55-foot 11¾-inches over couplers.

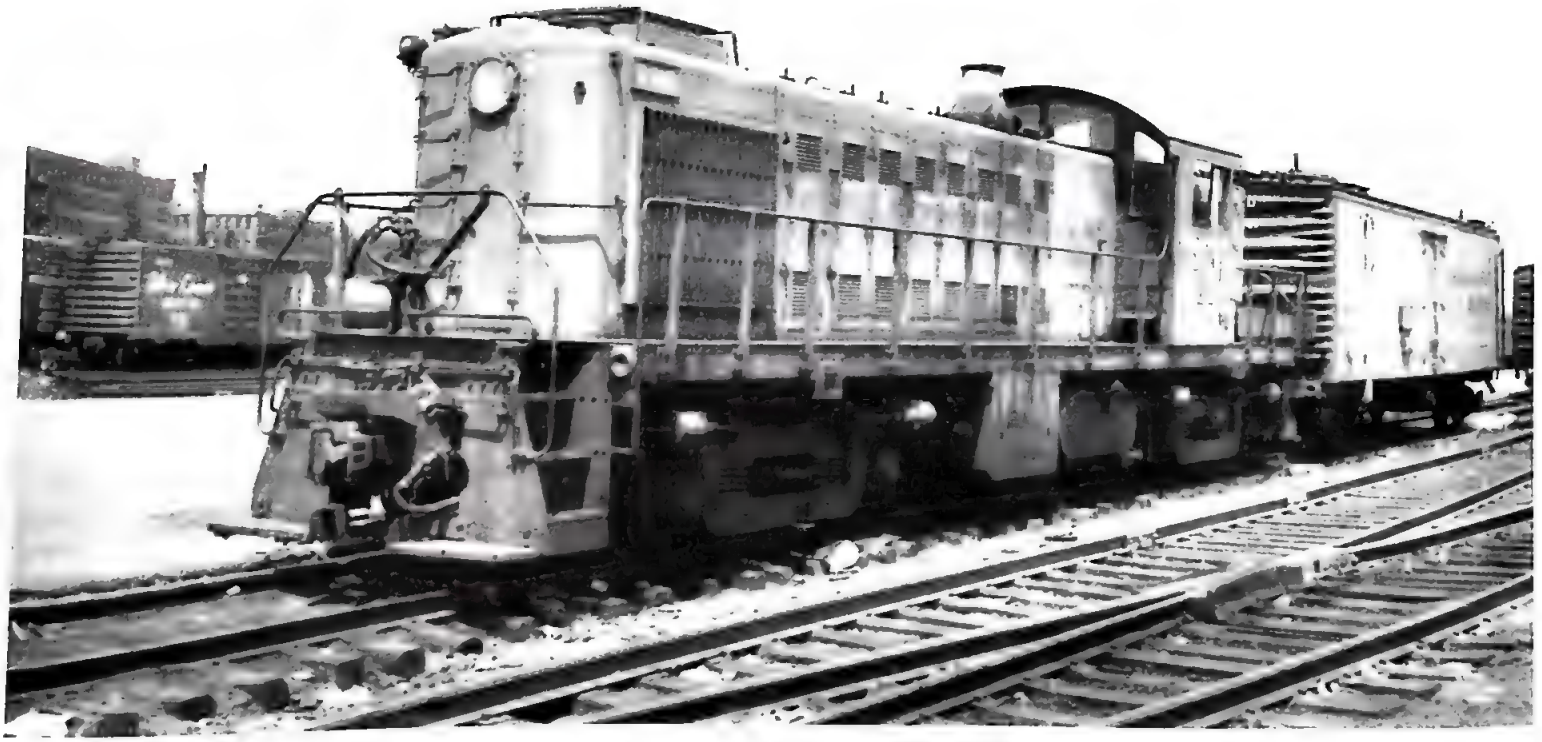
In 1947, the New Haven placed orders for ten (#0660-0669) RS-1 units for delivery in March and April 1948. New Haven's units had MU equipment, steam generators and roller bearing trucks. All were delivered in the orange hood, green cab color scheme typical for the New Haven in the late 1940s. These units were followed shortly by two more RS-1s (#0670-0671) delivered in November 1948 with steam generators. Only rated at 1000hp, these units did not stay in passenger service long, but switched to local freight operations. Unit #0670 was retired in 1963 with more units retired in 1965; however, five of the RS-1 units became part of the Penn Central system in 1969. Alco built 353 RS-1 units between 1941 and 1960 with just twelve assembled for the New Haven.

In the McGinnis era color scheme, RS-1 #0661 was photographed in May 1961. By that time, its steam generator was out of service and the unit used in freight service.

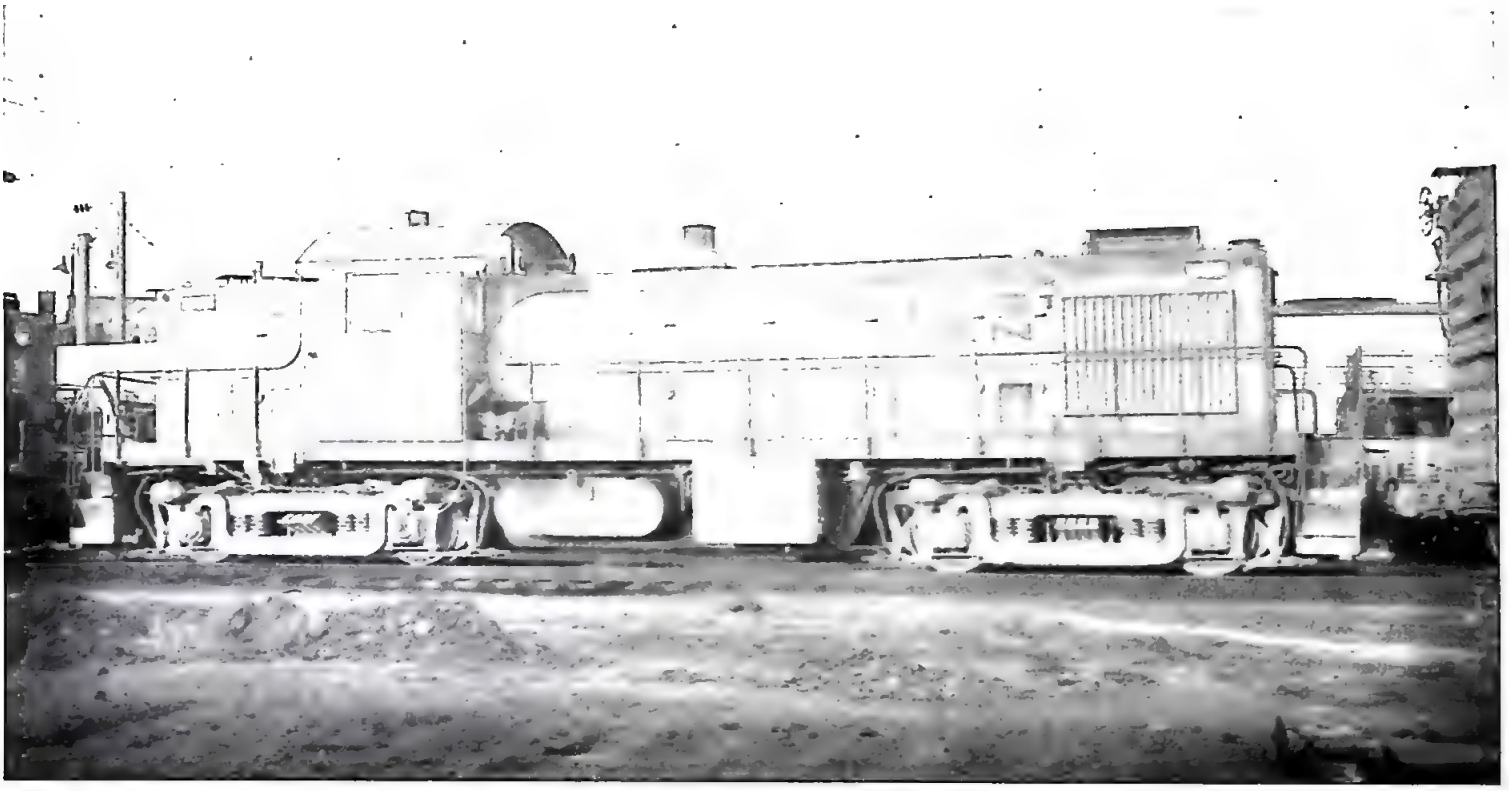
During the first few years of service, RS-1 #0662 powered passenger trains using its train heating steam generator. Assembled in March 1948, #0662 was one of only twelve 1000hp road switchers on the New Haven system. The train is ready to head south (railroad direction west) out of Winsted, CT.

As delivered, #0666 had roller bearing axles and 40-inch wheels for the GSC cast steel trucks. This late 1940s photograph shows the original paint scheme for these units.

At South Braintree, MA, #0667 was in local freight service on March 21, 1961. This view shows the MU equipment for these 1000hp road switchers.



Working at South Boston, #0668 switched cars on June 20, 1959. This 1948 built unit had been repainted in the McGinnis era paint scheme during the late 1950s.



DERS-1b #0670 was the first unit in New Haven's second group of RS-1 units. This July 26, 1960, side view of #0670 shows the long and short hoods as well as the engineer's side of the cab.

Number 0671 was in passenger service at Dover Street in Boston three years after delivery. The front markers were in place at the front of the long hood.

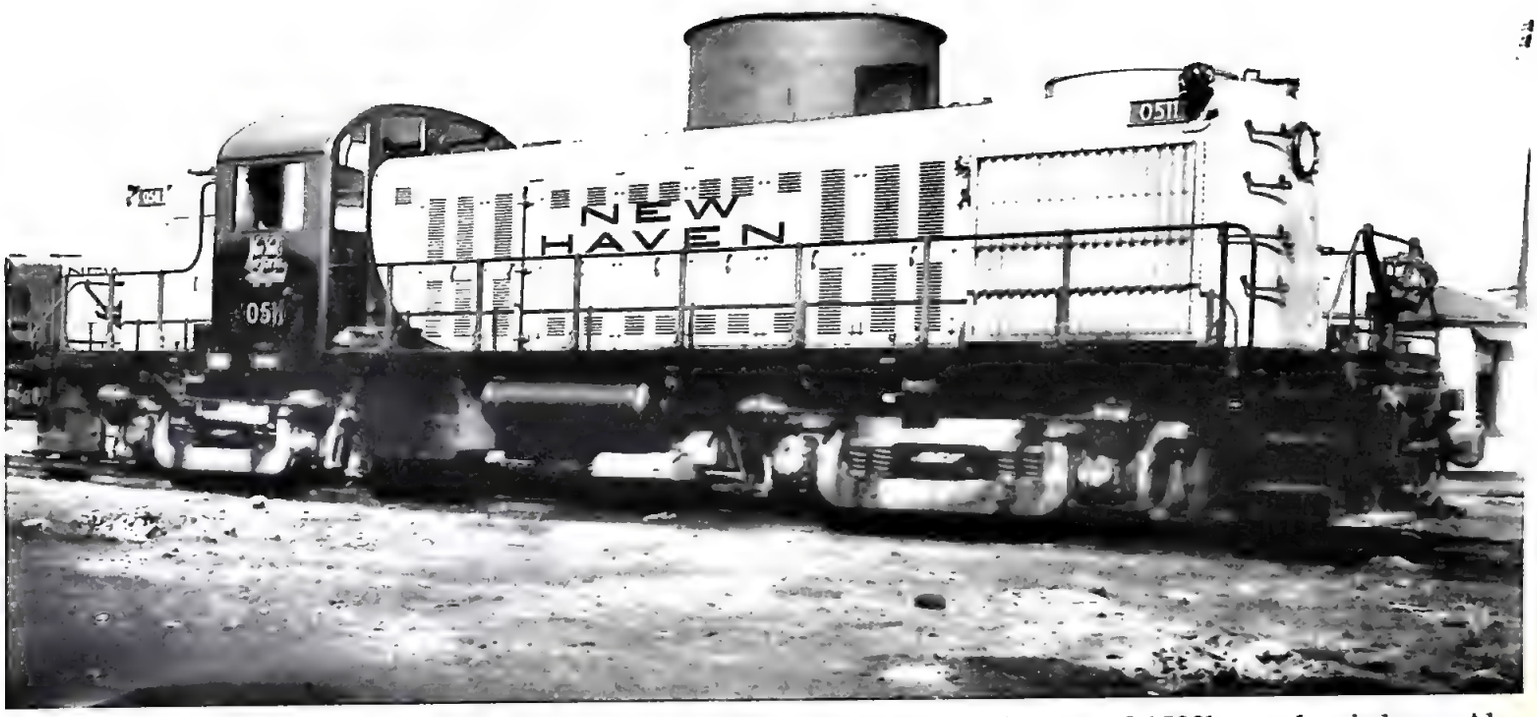
CLASS DERS-2b

DERS-2b	**0500-0509**	**ALCO**	**RS-2**	**1947-1948**
DERS-2b	**0510-0516**	**ALCO**	**RS-2**	**1948**

The first model 244 diesel engine was completed on October 20, 1945, at the Auburn Plant of Alco and placed under test at Schenectady. As the 12-cylinder 244 diesel engine progressed in testing, three more diesel engines were released for road testing in Alco cab units #1500, 1501 and 1502 in January 1946. Alco's first 1500hp road switcher was built with A1A-A1A trucks under specification E1661, later known as the RSC-2. It was completed on October 2, 1946, and shipped to the Milwaukee Road. The model RS-2 using a B-B truck arrangement started with Detroit & Mackinac #467, delivered on October 30, 1946. General Electric furnished a model GT 564 main generator and four GE 726 traction motors. These GE 726 traction motors were later in production replaced by the more standard GE 752 traction motor. The 240,000 pound RS-2 had a 55-foot 11¾-inch length over couplers.

New Haven first placed an order for ten (#0500-0509) model RS-2 road switchers with steam generators for delivery in December 1947 and January 1948, a little over one year after RS-2 production had started. Most operated between Danbury, CT and Pittsfield, MA in freight and passenger service. These were followed by seven more (#0510-0516), delivered in November and December 1948 for operation around Waterbury, CT. The RS-2 units remained active until retirement between 1963 and 1965. None were rebuilt by Alco like the RS-3 program, and several were traded to Alco and GE on newer power.

New Haven RS-2 #0506 idled at Boston along side a PA-1 unit on July 12, 1957. Originally working out of Pittsfield, MA, #0506 now worked at the east end of the state.



RS-2 #0511 displays the "as delivered" color scheme of New Haven's second group of 1500hp road switchers. Alco assembled #0511 at Schenectady in November 1948.

Looking at the rear end of RS-2 #0513 at Framingham, MA on September 12, 1954, the steam generator vent can be seen on top of the short hood and exhaust stack next to the cab on the short hood.

CLASS DERS-2c

DERS-2c	**517-536**	**ALCO**	**RS-3**	**1950**
DERS-2c	**537-546**	**ALCO**	**RS-3**	**1951**
DERS-2c	**547-561**	**ALCO**	**RS-3**	**1952**

Under Alco specification E1661c for the model RS-2 road switcher, horsepower available for traction was increased from 1500 to 1600hp in 1950. The Seaboard Air Line received the first 1600hp unit in March 1950 with a total of 31 units built during March and April period. Specification E1662 was for the new improved 1600hp road switcher, the model RS-3. Besides carbody and equipment improvement over the RS-2, the new RS-3 unit had a General Electric GT581 main generator plus 752 type traction motors. Great Northern received the first model RS-3 unit on May 16, 1950. Under specification E1667, E1662A and E1662B, 1,272 RS-3 units were produced by Alco between 1950 and 1956.

New Haven's first order for the model RS-3 was twenty units (#517-536), delivered in August and September 1950 with MU and steam generators. With a 64:19 gear ratio, these RS-3 units with a green bottom band on the hoods could operate at 80 MPH and had dual Shore Line and Hartford Division cab signals. Ten more RS-3 units (#537-546) arrived in October and November 1951, but this time with green tops to the hoods. The final group of fifteen (#547-561) were delivered in January and February 1952. Many were repainted into the McGinnis era paint scheme during the late 1950s. With the closing of Readville Shops in 1958 and deferred maintenance, eight of the RS-3 units, #518, 526, 529, 533, 549, 551, 553, and 559 were rebuilt by Alco in 1959, including rebuilt steam generators and new 26L brake equipment so they could MU with the newer road switchers. In 1962, fourteen more, #517, 520, 523, 527, 528, 534. 535, 537, 538, 545, 547, 548, 557 and 558 also were rebuilt by Alco. This group had their steam generators removed and a raised hood rectangular box applied around the turbocharger at the top of the hood. Two more RS-3 units, #542 and 543, were rebuilt at the Lamberton Street Shops in New Haven with steam generators, but without new 26L brake equipment. All of the New Haven rebuilt RS-3 units made it into the Penn Central era.

New Haven's first group of RS-3 units were built in August and September 1950, only three months after Alco started production. The RS-3 locomotives were assigned a class of DERS-2c with #524 being photographed in the early 1950s.

Coupled in multiple to another RS-3, New Haven #527 worked out of Boston in its early years. The cab signal equipment box was mounted on the right side walkway in front of the cab for this unit to operate on the Shore Line or Hartford Division.

RS-3 #536 worked at Providence in the early 1950s. Its exhaust stack indicated the unit still had its original air-cooled turbocharger. (R.L. Wonson)

On March 29, 1952, RS-3 #548 pulled one of several extra trains from Boston to Braintree due to an Eastern Mass Street Rwy. drivers strike. At that time, #548 was only 60 days old and a member of New Haven's second group of RS-3 units, #537-546, delivered in October and November 1951.

Passing the ancient signal at Bridge St. in Willimantic, CT, RS-3 #553 pulled a local freight northbound. At the time of the photograph, RS-3 #553 was about six months old. Alco built New Haven's last group of RS-3 units, #547-561, in January and February 1952 to complete dieselization of the system. (David Sweetland)

CLASS DERS-3

DERS-3	**560-569**	**FM**	**H16-44**	**1950**

(renumbered to 590-599 in late fall of 1951)

With the development of the 8-cylinder 38D8⅛ opposed-piston diesel engine, Fairbanks-Morse designed a 1500hp road switcher for production starting in September 1947. After producing thirty-six of these road switchers between 1947 and the end of 1949, FM upgraded the unit to 1600hp in April 1950, becoming the model H16-44. These Raymond Loewy designed units had round windows in the cab, sloped ends to the hoods and raised headlight mounts on each end of the hoods. MKT received the first H16-44 units (#1591) followed by four units to the CNJ and three units to the Union Pacific in 1950. The next H16-44 group were the New Haven's ten (#560-569) delivered in November and December 1950. With AAR drop equalizer trucks, Westinghouse 370 traction motors and 42-inch wheels, the H16-44 could operate up to 75 MPH on the New Haven and came equipped with steam generators for passenger service. Their air throttles did not allow them to be operated with other units, but they did have Hartford and Shore Line cab signals. Their "as delivered" color scheme included orange hoods, a green cab and a green stripe at the bottom of the hoods. After about one year, the units had to be renumbered to #590-599 to make room for road numbers for the new (1952 built) RS-3 Alco road switchers. During the late 1950s, several received the McGinnis color scheme and continued to operate out of Charles Street in Providence. Number 596 was stored with diesel engine problems in 1959, and #590 was retired in 1960. The other eight continued to operate and later (1967) were transferred from Providence to Oak Point Yard. None were active at the time of the Penn Central merger.

With an active steam generator, #560 was at Boston a few months after delivery MUed to another H16-44 unit. These were the first non-Alco road switchers on the New Haven.

Covering a passenger assignment at Norwood Central, MA in 1951, #562 was coupled to a head end car. Renumbering of the DERS-3 class to the 590 series would take place several months later.

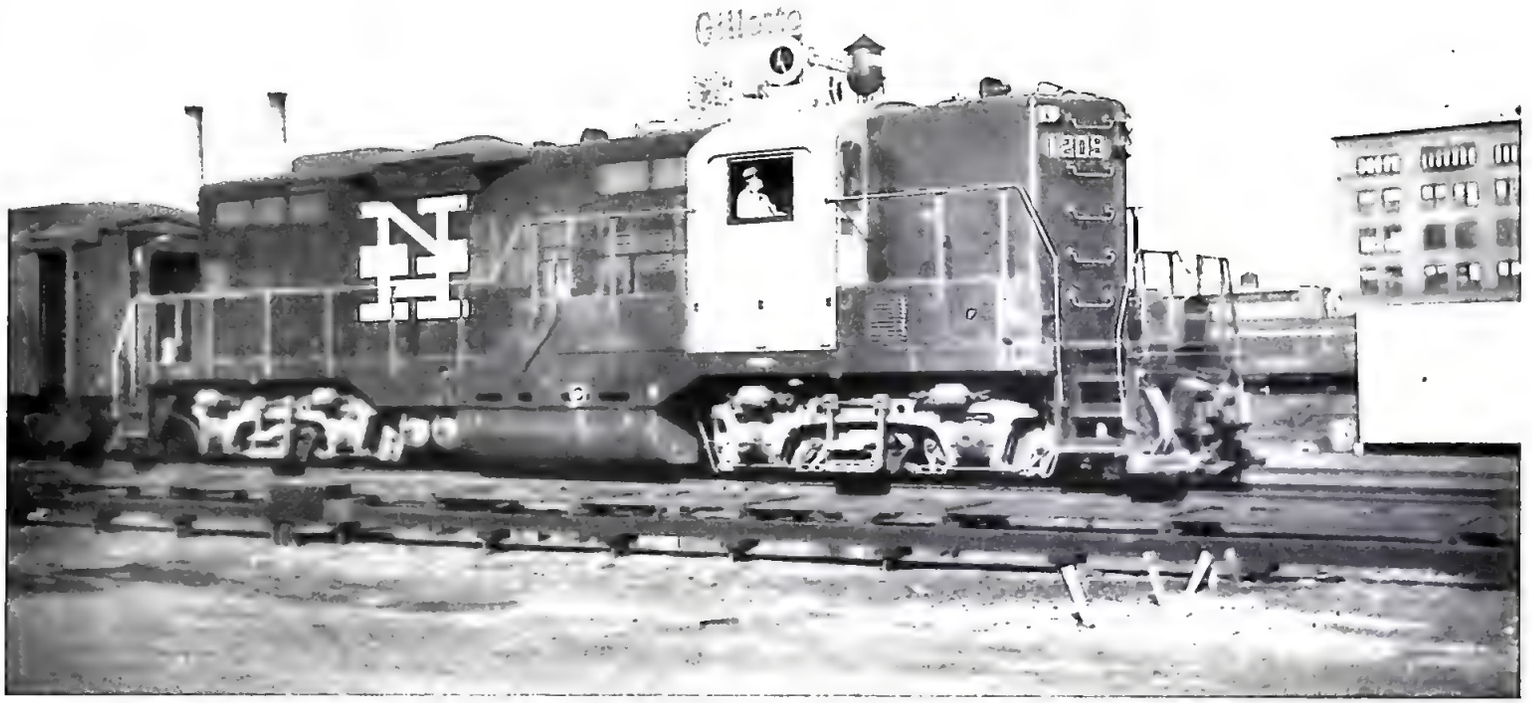
On a Boston to Providence local passenger train, #592 stopped at Canton Jct., MA in 1952. Within a few years, the 590 group of H16-44 units would be freight only locomotives with the de-activation of their steam generators.

CLASS DERS-4

DERS-4	**1200-1229**	**EMD**	**GP9**	**1956**

Under the McGinnis management of 1955, the team wanted to purchase at least 120 GP9 road switchers to replace older road power. The team had hoped to order sixty GP9 units for 1956 delivery, but EMD's order books were nearly full for that year; however, the New Haven was successful in ordering thirty GP9 units for delivery in July and August 1956. In 1954, EMD had improved its 1500hp GP7 road switcher into the 1750hp GP9 with a 16-cylinder 567C diesel engine. New Haven's units came with a 59:18 gear ratio for an 83 MPH operation, dynamic brakes and steam generators. The shortfall of the unit was a small 800 gallon water tank for the steam generator which was rectified by the New Haven by installing extra water tanks on the walkways in front of the cab doors bringing the water capacity up to 1200 gallons. By late 1956 the water tanks had been installed, keeping GP9 units #1200-1229 right in Shore Line service pulling freight or passengers. The arrival of these units plus the fifteen Alco RS-11s and fifteen FM H16-44s, caused the retirement of twenty DL-109 units. The GP9s did not always operate in sets with others of its class, but were often MUed with the 1400-series RS-11 units and 1600-series H16-44 units. Until the rebuilding of the RS-3 units in 1959 and 1962, the Geeps did not multiple with the RS-3 (class DERS-2c) units due to air brake and MU receptacle incompatibility. During the New Haven years, GP9 units #1207 and 1216 had their steam generators removed, but all thirty were transferred to Penn Central ownership in 1969.

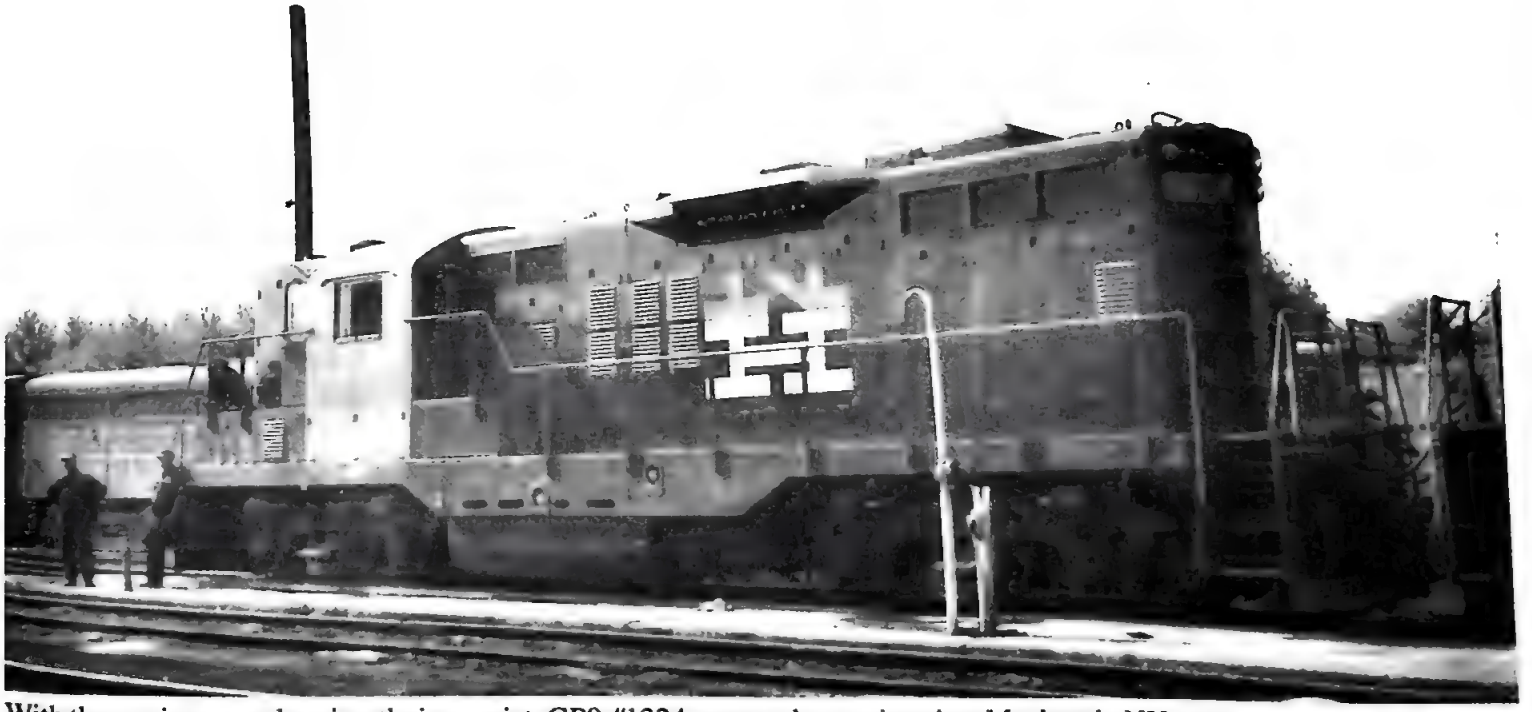
Photographed at New Haven on July 13, 1968, GP9 #1204 was leading Century 425 #2556. With 26L brake equipment in the second generation diesel power on the New Haven, the Geeps could multiple with these units. (Fred Kern)



Working a local passenger run out of South Station, #1209 operated short hood front on April 16, 1959. The new enlarged water tank can be seen behind the cab on the walkway.

On August 6, 1957, Geeps #1212 and 1204 made a station stop at Old Saybrook, CT with Train #5 THE MURRAY HILL on its run from Boston to New York City. These Geeps had replaced some PA units on Shore Line trains.

Looking out the cab window, the engineer of GP9 #1219 watched activities on the platform at Old Saybrook, CT on June 22, 1957. Geeps #1219 and 1221 handled Train #12, THE BAY STATE, to Boston with ten cars.



With the engine crew leaving their consist, GP9 #1224 was on the service pit at Maybrook, NY on October 14, 1956. At that date, #1224 had not been equipped with the extra steam generator water tanks.

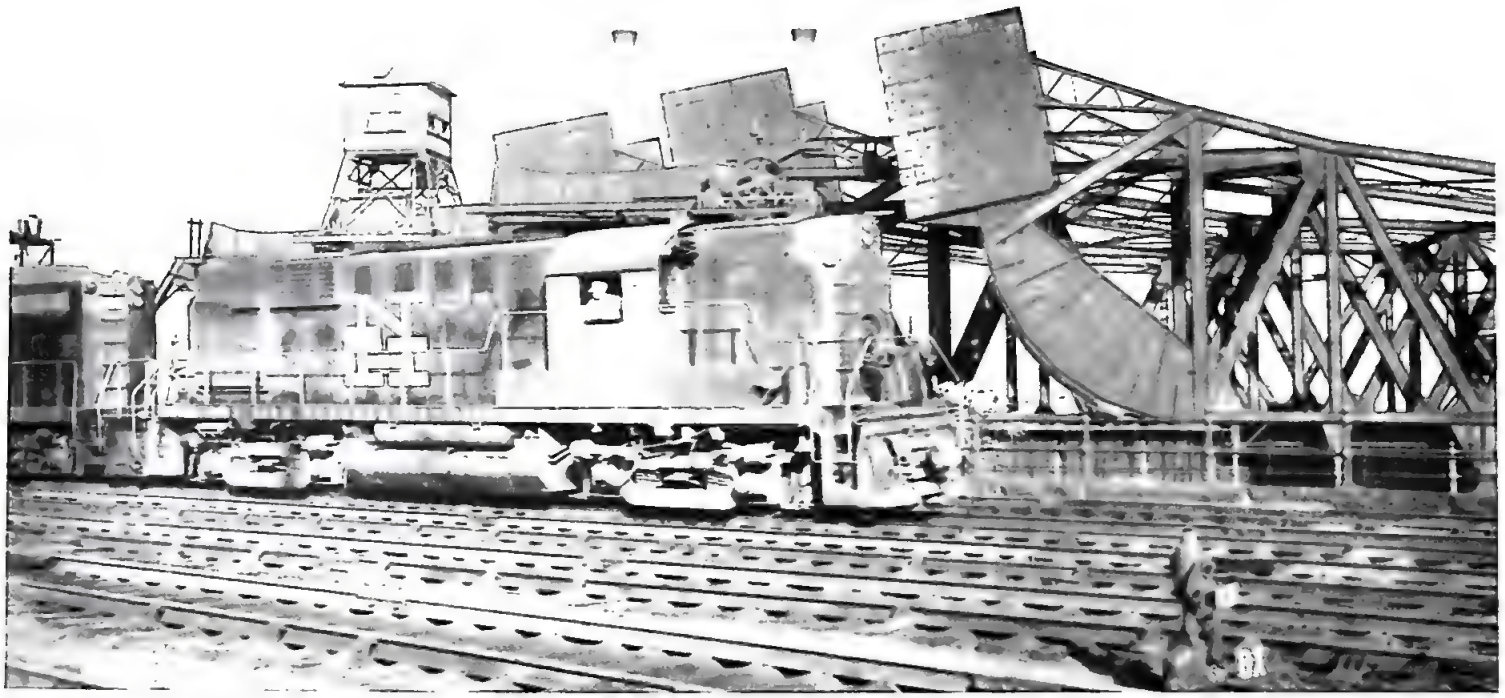
CLASS DERS-5

DERS-5	**1400-1414**	**ALCO**	**RS-11**	**1956**

Alco decided to replace both the 244 and 539 diesel engines with a new design diesel engine in the early 1950s, assembled in an inline six-cylinder, V12 and V16 arrangement. The pilot model was an 800hp six-cylinder engine block that would be used for switchers. A test locomotive using the inline-6 was completed on August 13, 1951, lettered Alco #6. Alco's Auburn diesel engine plant started the first production run of 6-cylinder diesel engines in April 1953 for export GE units. The production run for US locomotives built with V12 and V16 251 diesel engines started in 1956, and the first three RS-11 demonstrators were assembled at Schenectady in February 1956. The 1800hp RS-11 road switcher measured 56-feet 11¾-inches over couplers and had a nominal weight of 240,000 pounds. General Electric furnished the GT 581 main generator, four GE 752 traction motors and electric components.

Placing an order with Alco, fifteen RS-11 units (#1400-1414) were delivered to the New Haven in May and June 1956. New Haven had hoped to obtain more GP9 units, but EMD was unable to make delivery that year. These RS-11 units came geared for passenger service and were equipped with Vapor steam generators. Their color scheme included red cabs and handrails, black hoods and a large N over H logo on the long hood. They worked with the 1956 GP9 and H16-44 units and later with second generation Alco and GE power. All fifteen were transferred to Penn Central ownership becoming 7600 series units on the PC.

Steam generator equipped RS-11 #1403 was at Boston on July 13, 1957. Its color scheme included red cabs and black hoods with the large N over H logo on the sides of the long hood.



New Haven #1406 and 1220 teamed up together on a Shore Line passenger train leaving South Station within the first year of delivery. In time, the RS-11 units moved to the freight operations and the steam generators were taken out of service.

One year old RS-11 #1409 was in passenger service with #1404 on July 12, 1957. These RS-11 units were the most powerful of the 1956 built New Haven road switchers.

CLASS DERS-6

DERS-6	**1600-1614**	**FM**	**H16-44**	**1956**

In March 1955, Fairbanks-Morse made a design change to the phase III carbody H16-44 units, a modular construction like the 2400hp Train Master type units. Virginian #116 was the first unit of this new design followed by a group of three units for the B&O units built in April. These units had all General Electric electric equipment (as opposed to Westinghouse for New Haven's 590 series), three AC radiator cooling fans, a high walkway around the unit and C-liner type trucks (AAR drop-equalizer type had been used on the 590 series). A Vapor 4625 steam generator was located in the short hood and dynamic brakes installed next to the cab on the long hood end. Assembled at FM's Beloit, WI plant, #1600-1604 were built in June 1956, #1605-1612 in July and #1613-1614 in August. Equipped with cab signals for both the Shore Line and Hartford Division, the 1600s moved to the Springfield line after the arrival of the first group of FL9 units. The units were painted black with red cabs and handrails. Like many other classes of New Haven diesels, the DERS-6 units had their dynamic brakes deactivated in the 1960s. After an electrical fire, unit #1609 returned to FM for an overhaul and rewire in 1965 through a sale and buyback arrangement. Upon return, it was the only 1600 class unit to have the red-orange hoods with black cab color scheme. All fifteen units were transferred to Penn Central ownership in 1969, but not all units were active. Ten of the fifteen became active PC units in the #5160-5174 group and were stationed at Chicago.

One month old #1601 and 1604 H16-44 units were at South Bay Jct. in Boston on July 26, 1956. These units had been placed in passenger service after delivery to the New Haven.

On September 27, 1967, New Haven H16-44 #1608 worked a local freight at Putnam, CT. By this date, the dynamic brakes in the hatch in front of the cab had been deactivated.

At New Haven, CT on May 19, 1957, FM units #1613 and 1604 were MUed together for service. These were phase III type carbody H16-44 units, built one year earlier at Beloit, WI.

CLASS DERS-7

DERS-7	**2500-2509**	**GE**	**U25B**	**1964**
DERS-7	**2510-2525**	**GE**	**U25B**	**1965**

The Alco-GE locomotive partnership was terminated in 1953 and GE then started making plans to develop and market its own locomotive. A four unit cab demonstrator was released from Erie in 1954 to test the Cooper-Bessemer diesel engine. GE's first V16 diesel engine became available in 1958 and tested in a road switcher unit a year later. After XP24 test beds, GE produced its first set of U25B demonstrators in 1961 with its first sales of this model to the Union Pacific in 1962. The U25B was a 2500hp road switcher with a large DC GT 598 main generator and AAR B-B trucks with GE 752 traction motors.

New Haven's first experience with the new U25B was four demonstrators (#51-54) built in December 1962 and testing on the New Haven during March 1963. Needing new freight power especially for the Maybrook Line, the New Haven placed orders for ten of these units for delivery in October 1964 along with ten Alco Century 425 units. Numbered 2500-2509, the U25B units were delivered in the black with three white stripes color scheme, a large red N over H logo on the side of the hoods and red running boards.. In the cab over the short hood was a large one-piece center windshield. Soon after delivery, they were mixed with the C425 units in three and four unit road sets. The following year, October and November 1965, U25B units #2510-2525 joined the New Haven fleet. These units had the split window type windshield. Unit #2525 had the distinction of being the last locomotive delivered new to the New Haven. All twenty-six U25B units joined Penn Central in 1969.

New Haven's second U25B #2501 waited at New Haven on July 13, 1968. The first group of New Haven's ten U25B units had the large center windshield with anti-vandalism screen. (Fred Kern)

On September 22, 1969 (into the PC era), #2511 idled between runs at Maybrook, NY. This group starting with #2510 had the two piece front center windshield.

Coupled with another U25B, #2519 was at New Haven on July 13, 1968. This last group of new motive power arrived on the New Haven roster in November and December 1965 not equipped with dynamic brakes. (Fred Kern)

CLASS DERS-8

DERS-8	2550-2559	ALCO	Century 425	1964-1965

In 1963, Alco introduced its new "Century Line" of road switchers, a revision in carbody design, but retaining the model 251 diesel engine. The entire engine compartment was pressurized with filtered air to eliminate dirt getting into the engine room and electrical components. Starting with the 2000hp road switcher (Century 420), the first two units were shipped to the Lehigh & Hudson River in June 1963. At about the same time (May and June), fifteen Century 424 2400hp units were delivered to the Erie-Lackawanna. At the request of the EL, a 2500hp (Century 425) unit was developed in 1964 to match the performance of the General Electric U25B. In this unit the 16-cylinder 251C diesel engine was increased to 2500hp and a new larger (GT598) main generator installed, the same generator as used in the U25B.

The New Haven ordered ten of those Century 425 units (#2550-2559) for delivery in December 1964 and January 1965. Like the U25B units delivered at the same time, the C425 units were painted black with three white stripes, a large N over H logo on the sides of the long hood and red running boards. With the U25B units, their main running territory was the route between New Haven and Maybrook. These were the last Alco units delivered to the New Haven and all transferred to PC ownership in 1969. Alco produced a total of 91 Century 425 units between October 1964 and December 1966.

Two Century 425 units, #2555 and 2551, were at the pit at Cedar Hill on July 4, 1965, about six months after delivery. Due to New Haven clearances, the horns were placed over the front headlight.

Another consist at Cedar Hill on July 4, 1965, was C425 #2557 plus U25B #2500. In comparison, the C425 frame sits slightly higher on the trucks than the U25B.

Maybrook enginehouse was full of power on May 1, 1965, including C425 #2558 and a U25B. New Haven's C425 units had a short hood over the air intake for the engine room.

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